

## ABSTRACT

The transmission method utilizes multiple seismic acquisition units within an array as intermediate short range radio receivers/transmitters to pass collected seismic data in relay fashion back to a control station. Any one seismic unit in the array is capable of transmitting radio signals to several other seismic units positioned within radio range of the transmitting unit, thus allowing the system to select an optimal transmission path. Utilizing an array of seismic units permits transmission routes back to a control station to be varied as needed. In transmissions from the most remote seismic unit to the control station, each unit within a string receives seismic data from other units and transmits the received seismic data along with the receiving unit's locally stored seismic data. Preferably, as a transmission is passed along a chain, it is bounced between seismic units so as to be relayed by each unit in the array.